



Thermostat
Recycling
Corporation

Answers to Dealer Questions about Recycling Mercury Containing Thermostats

Why is the HVAC industry doing this?

We want to see every used mercury-containing thermostat recycled. This is good for the environment because it prevents contaminating materials from potentially entering the waste stream. It's good for consumers and HVAC contractors because it provides a convenient way to dispose of used thermostats. Our industry has the infrastructure needed to recycle a very high percentage of used thermostats.

What specifically is my role?

Whenever you replace a mercury thermostat for service or upgrade, retain the old thermostat. When you make routine visits to your wholesaler, place these used thermostats in the green plastic container, which the wholesaler will have placed somewhere in each branch.

Am I subject to any liability for participating?

No. This program is operated in accordance with the Federal Universal Waste Rules, which your state has adopted. The Universal Waste Rule specifically allows you to collect used thermostats from jobs and to hold and transport them for recycling.

Is there any cost?

There is no cost to you or to your wholesaler for this program. Costs are born by the Thermostat Recycling Corporation (TRC).

Does the recovered mercury offset the cost of recycling?

No. When used thermostats are shipped to the processing center, the mercury switches are removed and sent to a recovery facility where the mercury is actually recovered and made available for reuse. TRC pays a fee to the recovery facility in addition to allowing them to retain the recovered mercury.

What should I do if a homeowner brings me a thermostat that they have removed themselves?

We request that you accept it and drop it off at your wholesaler with your other recovered thermostats.

Are there other ways for a consumer to handle a used thermostat?

Yes. They could call their county waste disposal office; many local governments have provided for mercury waste disposal by consumers. Thermostat manufacturers also provide consumer recovery programs. The homeowner could call the manufacturer for instructions.

What about in warranty thermostats?

Do not mix used, out-of-warranty thermostats with warranty product. If a mercury thermostat fails in warranty, tag it using normal in-warranty tagging procedures and return it to your wholesaler or manufacturer for a replacement. If you place in-warranty products in the recycling bins, you and your wholesaler will not receive warranty credit or replacement.

What should I do if a mercury bulb is leaking?

If a mercury bulb is leaking, avoid breathing the mercury dust, and avoid contact with eyes, skin, and clothing. To contain the spill, droplets of mercury can be pushed together using a piece of paper. Small drops can be picked up on cellophane tape. Place these items and the thermostat in doubled zip lock bag and bring immediately to your nearest participating Wholesaler. Wash hands completely, remove any contaminated clothing and wash before reuse.

Is there anything I need to do to comply with the recycling program?

Yes. Bring the thermostats to a wholesaler who is participating in the program. You cannot transport more than 100 thermostats at a time.

Should the mercury bulbs be separated from the thermostats and returned for recycling?

No. It is important to return the entire thermostat since it provides protection for the mercury bulb during shipment.

What happens to the old thermostat that my dealer removed?

The mercury inside your old thermostat will be removed, recycled and used again in new thermostats or other products. This recycling program is made possible through the cooperation of dealers, wholesalers and manufacturers who are committed to the responsible handling of mercury and the protection of the environment.

Is my thermostat safe?

Yes, mercury-containing thermostats are safe. In normal use, the consumer is never exposed to the mercury, which is entirely contained in a glass bulb. Thermostats are specifically designed to protect and hold the mercury inside. The mercury bulb is strong and durable and is attached to a metal strip that absorbs shocks. The bulb is protected by a sturdy thermostat casing. Nevertheless, it's prudent to handle thermostats with care.

How does the mercury work inside a thermostat?

Mercury's unique characteristics make it extremely effective as a switch in a thermostat. Because of its excellent conductivity and high surface tension, the mercury rolls freely inside the glass tube of a mercury switch. As it moves within the switch, the mercury breaks or makes electrical circuits, which signal the call for heating or cooling from a furnace or air conditioner.

Do all thermostats contain mercury?

No, there are several thermostat technologies that do not use mercury. These include electronic, snap-action, reed switch and vapor-filled diaphragm thermostats. Each model has different features, impacts the environment and must be managed responsibly when removed from service.

Why is mercury used in thermostats?

Mercury has many unique properties that make it extremely effective in the mercury switches used in thermostats and other products. Mercury thermostats are recognized by the heating, ventilating and air conditioning industry for their accuracy, reliability and long life. Scientists have found no feasible substitute for mercury, despite extensive-and continuing-research.

It's important to remember that environmental issues are often complex. Every product uniquely impacts the environment in terms of use of raw or recycled materials, manufacturing and assembly processes, packaging, length of service and energy requirements, to list a few.

Mercury-containing thermostats are very popular. They provide excellent performance and value: quiet operation, efficient switching for accurate temperature control and up to 40 years of service with little or no maintenance.

In addition, mercury from thermostats is easily recycled. Our goal is to see that mercury from all thermostats is recycled. Virtually all the mercury used in the manufacture of thermostats in the United States is from recycled sources.

For more information, contact Ric Erdheim of TRC at (703) 841-3249.